ARM

<u>PATENT</u>

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Examiner: Nghi H. LY John Deryk WATERS et al. Art Unit: 2686 Serial No.: 09/885,289 Our Ref: B-4228 618900-6 Filed: June 20, 2001 30004778-1 US "LOCATING ITEMS" For: Date: June 15, 2006 Appeal to the Board of Appeals Re:

BRIEF ON APPEAL

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

This is an appeal from the Final rejection, dated December 19, 2005, for the above identified patent application. Appellants submit that this Appeal Brief is being timely filed because the Notice of Appeal was filed on April 19, 2006. Please deduct the amount of \$500.00 for the fee set forth in 37 C.F.R. 1.17(c) for submitting this Brief from deposit account no. 08-2025.

REAL PARTY IN INTEREST

The real party in interest to the present application is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

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RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences related to the present application.

STATUS OF CLAIMS

Claims 1 - 31, 33-36 and 38-72 are the subject of this Appeal and are reproduced in the accompanying appendix.

STATUS OF AMENDMENTS

No Amendment After Final Rejection has been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention described and claimed in the present application relates generally to locating items, and in particular locating lost items (p. 1 l. 3). Claim 1 in particular is directed to a method of locating a missing item that is capable of communicating its presence to a piconet telecommunications device. The claimed method comprises having a plurality of piconet telecommunications devices establish which other piconet telecommunications devices are members of a piconet to which they belong at a particular point in time (p. 16 ll. 7-10), having the piconet telecommunications devices create an activity log correlating at least time and the identity of which piconet telecommunications devices were in communication at that point in time (p. 16 ll. 10-14), and establishing whether the missing item is present in the current piconet of said piconet telecommunications device and/or reviewing the activity logs to establish whether a record exists of a historic piconet to which both the missing item and a contactable other piconet telecommunications device belonged at the time that the historic piconet existed (p. 20 l. 25 - p. 21 l. 6).

Claim 15 is also directed to a method of locating a missing item that is capable of communicating its presence to a piconet telecommunications device. This claimed method comprises forming a short range piconet with a plurality of piconet telecommunications devices (p. 16 ll. 7-10), having the piconet telecommunications devices establish which other piconet telecommunications devices are members of the piconet to which they belong at a particular point in time and having the piconet telecommunications devices create an activity log

correlating at least time and the identity of which piconet telecommunications devices were in communication at that point in time (p. 16 ll. 10-14), establishing whether the missing item is present in the current piconet of a said piconet telecommunications device and/or reviewing the activity log to establish whether a record exists of a historic piconet to which both the missing item and a contactable other piconet telecommunications device belonged at the time that the historic piconet existed (p. 20 l. 25 - p. 21 l. 6), and establishing whether there is a known location for the historic piconet which most recently had as a member the missing item (p. 21 ll. 8-27).

Claim 20 is directed to a piconet telecommunications device comprising a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs (p. 15 ll. 8-17, p. 16 ll. 7-10), and a controller to capture a piconet activity log when the device comes within piconet range of other piconet telecommunications devices, to build up a log of which other devices were piconet members with the device and at what time that piconet existed and which of those devices are dual mode devices having both piconet capabilities and having long range telecommunication abilities, to establish the long range telecommunication addresses of any such dual mode devices, and to receive a request to search for a missing item of known identity and upon such request to screen the activity log to identify historic piconets which contained the missing item and a dual mode device, wherein the controller is adapted upon identifying such a dual mode device to contact it via long range telecommunications and establish whether the missing item is in the current piconet of the dual mode device (p. 20 l. 9 – p. 21 l. 27).

Claim 21 is directed to a piconet telecommunications device comprising a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs (p. 15 ll. 8-17, p. 16 ll. 7-10), and a controller to capture a piconet activity log when the device comes within piconet range of other piconet telecommunications devices, the piconet activity log comprising a record of which other devices were piconet members with the device and at what time that piconet existed and a positional location for the piconet at that time, the controller further capable of receiving a request to search for a missing item of known identity and upon such request to screen the activity log to identify historic piconets known to the device to have contained the missing item and the positional location of the historic piconet

which last contained the missing item, the device being adapted to communicate the last, piconet-known to the device, location of the missing item to the user (p. 20 l. 9 - p. 21 l. 27).

Claim 31 is directed to a piconet network comprising a plurality of piconet devices in communication (p. 15 ll. 19-22), the piconet devices having the functional capability of automatically exchanging with other devices in a piconet, without human intervention, information as to their identity (p. 16 ll. 7-10), and of recording the identity of members of the piconet in an activity log or in respective piconet activity logs associated with each piconet device, the activity log(s) including the members of the piconet and a time at which the particular piconet with those particular members existed (p. 16 ll. 10-14).

Claim 33 is directed to a piconet telecommunications device comprising a piconet receiver capable of receiving information about members of piconets to which the device temporarily belongs (p. 15 ll. 19-22, p. 16 ll. 7-10), and a controller to create automatically, without user intervention, when the device comes within piconet range of a piconet apparatus and communicates with said piconet apparatus, a piconet activity log which records the identity of the members of the piconet to which the device belongs (p. 20 l. 9 - p. 21 l. 27).

Claim 44 is directed to a method of tracking piconet-capable articles in the physical environment of a piconet device comprising having the device automatically create without user input a piconet activity log of the identity of piconet capable articles which have formed an adhoc piconet with said device (p. 16 ll. 7-14).

Claim 51 is directed to a data carrier having a program encoded upon it, the program when loaded onto, or running on, a controller of a piconet device having a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs causes the controller to capture a piconet activity log when the device comes within piconet range of other piconet devices and to build up a log of which other devices were piconet members with the device and at what time that piconet existed, and also which of those devices are dual mode devices having both piconet capabilities and having long range telecommunication abilities, and to establish their long range telecommunication addresses; and further causes the controller on receiving a request to search for a missing item of known identity to screen the activity log to identify historic piconets which contained the missing item and a dual mode device, and upon identifying such a dual mode device to contact it via long range

telecommunications and to establish whether the missing item is in the current piconet of the dual mode device (p. 16 ll. 7-14, p. 20 l. 25 – p. 21 l. 6).

Claim 52 is directed to a data carrier having a program encoded upon it, the program when loaded onto, or running on, a controller of a piconet device having a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs causes the controller to capture a piconet activity log when the device comes within piconet range of other piconet devices, the piconet activity log comprising a record of which other devices were piconet members with the device and at what time that piconet existed and a positional location for the piconet at that time; and further causes the controller on receipt of a request to search for a missing item of known identity and to screen the activity log to identify historic piconets known to the device to have contained the missing item and the positional location of the historic piconet which last contained the missing item, the device being adapted to communicate the last, piconet-known to the device, location of the missing item to the user (p. 16 ll. 7-14, p. 20 l. 25 – p. 21 l. 6).

Claim 53 is directed to a data carrier having a program encoded upon it, the program when loaded onto, or running on, a controller of a piconet device having a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs causes the controller to create automatically, without user intervention, when the device comes within piconet range of a piconet apparatus and communicates with said piconet apparatus, a piconet activity log which records the identity of the members of the piconet to which the device belongs (p. 16 ll. 7-14, p. 20 l. 25 - p. 21 l. 6).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Issue 1: Whether claims 1-31, 33-36, and 38-72 are unpatentable under 35 U.S.C. 103(a) over U.S. Pat. No. 6,373,389 to Przygoda in view of U.S. Patent No. 6,297,737 to Irvin.

GROUPING OF CLAIMS

For each ground of rejection which Appellant contests herein and which applies to more than one claim, such additional claims, to the extent separately identified and argued below, do not stand or fall together.

ARGUMENT

Issue 1: Whether claims 1-31, 33-36, and 38-72 are unpatentable under 35 U.S.C. 103(a) over U.S. Pat. No. 6,373,389 to Przygoda in view of U.S. Patent No. 6,297,737 to Irvin.

In section 3 of the final Office Action of December 19, 2005, the Examiner once again rejects claims 1-31, 33-36, and 38-72 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,373,389 to Przygoda in view of U.S. Patent No. 6,297,737 to Irvin. The Examiner does acknowledge that Przygoda does not disclose (*inter alia*) piconets or piconet telecommunication devices. However, the Examiner finds that "Irvin teaches a piconet and a piconet telecommunication devices" and then opines that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the above teaching of Irvin into the system of Przygoda in order to allow the user to conveniently determine the location of one or more items of interest in a piconet." In their previous reply, Appellants respectfully explained why they are compelled to disagree with the Examiner's characterization and understanding of these references.

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." MPEP §2142. Appellants had noted that the Examiner has set forth not the slightest hint of such motivation, real or otherwise, in either of the cited references nor has he invoked the general knowledge of those skilled in the art. To merely state the benefit conferred by the invention is not setting forth the required showing of motivation but rather merely applying the benefit of hindsight to its fullest in combining disjointed references with the benefit of the invention itself as an explicit roadmap.

In section 4 of the final Action, the Examiner alleges to answer the above by tersely asserting that "the motivation to do so found in the knowledge generally available to one of ordinary skill in the art to make the combination in order to allow the user to conveniently determine the location of one or more interest in a piconet. In addition, Appellant's attention is directed to the rejection of claim 1 above." The Examiner's invocation of the general knowledge in the art to support his proposition is not persuasive and falls far short of meeting his burden. The case law is ripe with clear enunciations setting forth the Examiner's duty when relying on the general knowledge in the art. For instance, the Federal Circuit deciding *In re Lee*, Fed. Cir. 00-1158, (January 18, 2002) pronounced:

The determination of patentability on the ground of unobviousness is ultimately one of judgment. In furtherance of the judgmental process, the patent examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. The patent examiner and the Board are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of "the person having ordinary skill in the art to which said subject matter pertains," the words of section 103. In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board are presumed to act from this viewpoint. Thus when they rely on what they assert to be general knowledge to negate patentability, that knowledge must be articulated and placed on the record. The failure to do so is not consistent with either effective administrative procedure or effective judicial review. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.

[emphasis added]

Clearly, the final Action is completely lacking any such rationale and all it offers for the Board to rely on are precisely the type of conclusory statements prohibited under the law.

"Second, there must be a reasonable expectation of success... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure." MPEP §2142. Appellants had further noted in their previous reply that the Examiner had also offered not one single detail as to how exactly the skilled person would go about "providing" the teachings of Irvin into the system of Przygoda. Przygoda is directed to monitoring location within a precisely controlled physical environment and uses wireless technology to allow sensing the location of an object, and thus physically tracking that object, over time. Irvin, by contrast, is not coupled in any way to a particular physical location but rather enables a controlling device to reveal the presence of known objects within a certain proximity. It is certainly not immediately apparent how the controlled arrangements of Przygoda could be modified to form a piconet, or indeed if this is even practically feasible, and the Examiner's dismissive remarks fall far short of the burden imposed by the Rules and the MPEP.

In the final Action, the Examiner does not deign to reply to the above point.

"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP §2142. The Examiner had made no showing of where each and every claimed limitation that is missing in Przygoda may be found in Irvin. Appellants noted that, for instance, there is absolutely no mention or hint of any piconet telecommunications devices maintaining an activity log as recited by the present independent claims. Appellants had reviewed the entire Irvin reference with great care and simply could not find such a limitation taught anywhere in this document.

In the final Action, the Examiner replies to the above by dismissively remarking that "maintaining" an activity log is not recited in the claims. Setting aside the Examiner's attempt at semantic gameplay in the interest of not wasting the Board's time, Appellants submit that the references also do not disclose <u>creating</u>, <u>building up</u>, <u>capturing</u>, or <u>recording</u> an activity log, as recited by the present independent claims. Had the Examiner bothered to review the references in light of the substance of Appellants' arguments rather than basking in his own cleverness at realizing that the word "maintaining" *per se* is not recited in the claims, the present appeal may not have been necessitated. Appellants thus respectfully submit that the Examiner has failed

clearly and specifically identify where each and every claim limitation is taught in either of these two references, the above arguments regarding the impropriety of combining these two references notwithstanding.

Therefore, in view of the above, Appellants respectfully submit that claims 1, 15, 20,21, 31, 33, 44, 51, 52 and 53 are novel and nonobvious over the art on record.

The remaining claims depend variously from claims 1, 15, 20,21, 31, 33, 44, 51, 52 and 53. "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, in light of the above discussion of claim 1, Appellants submit that all dependent claims are also allowable at least in view of their dependency.

In view of all of the preceding, Appellants respectfully submit that all pending claims are novel and nonobvious over the art of record and that the Examiner's rejection is not supported by the art, and thus request that the rejection of all claims be overturned on appeal and the case be passed to allowance.

CONCLUSION

For the many reasons advanced above, Appellants respectfully contend that each claim is patentable and reversal of all rejections and allowance of the case is respectfully solicited.

I hereby certify that this correspondence is being deposited with the United States Post Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

June 15, 2006

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Attachments

Respectfully submitted,

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1. (previously presented) A method of locating a missing item capable of communicating its presence to a piconet telecommunications device, comprising:

- (i) having a plurality of piconet telecommunications devices establish which other piconet telecommunications devices are members of a piconet to which they belong at a particular point in time;
- (ii) having the piconet telecommunications devices create an activity log correlating at least time and the identity of which piconet telecommunications devices were in communication at that point in time; and
- (iii) establishing whether the missing item is present in the current piconet of said piconet telecommunications device and/or reviewing the activity logs to establish whether a record exists of a historic piconet to which both the missing item and a contactable other piconet telecommunications device belonged at the time that the historic piconet existed.
- 2. (original) A method according to claim 1 which includes the step of contacting said other piconet device and establishing whether the missing item is part of the piconet that now includes other piconet device.
- 3. (previously presented) A method according to claim 1 in which each piconet device creates its own activity log and stores it in itself, in its own memory.
- 4. (previously presented) A method according to claim 1 in

which a piconet device stores its activity log remote from itself.

- 5. (previously presented) The method of claim 1 comprising having a search-requesting piconet device check its own piconet for the presence of the missing device before screening the activity log, or its own piconet activity log to look for a historic piconet to which both itself, the missing item, and said other piconet device belonged, and then contacting said other piconet to establish whether the missing item is part of the current piconet of said other piconet device.
- 6. (original) The method of claim 5 comprising having the search-requesting piconet device and said other piconet device be capable of long range telecommunication and having the search-requesting device contact said other device using its long range telecommunications capabilities.
- 7. (previously presented) The method of claim 1 comprising asking piconet devices with long range telecommunication capabilities whether the missing item is presently in their local piconet in reverse chronological order that they are known from the activity log to have been in contact with the missing item.
- 8. (previously presented) The method according to claim 1 comprising having a cut off point beyond which the search does not backtrack for contacts.
- 9. (previously presented) The method of claim 1 comprising either using (i) a search-requesting piconet device which itself has a long distance telecommunication capability; or (ii) using a device which has only piconet range telecommunications but

that is in contact with a piconet member which does have long distance telecommunications ability and uses their long range telecommunications; to contact said other devices.

- 10. (previously presented) The method according to claim 1 comprising sequentially asking those other piconet devices that are identified from the activity log for information on whether the missing item is in their current piconet.
- 11. (previously presented) The method according to claim 1 comprising simultaneously or substantially simultaneously asking a plurality of said other devices for information on whether the missing item is in their current piconet, without waiting for a reply from the first said other device interrogated.
- 12. (previously presented) The method of claim 1 further comprising having the piconet devices record their geographical, or physical, location at the time that a piconet exists.
- 13. (original) The method of claim 12 further comprising making piconet connection between a first device which has no inherent self-location abilities and another, second, device which does know its own location, and having the first device assume itself to be at the same, known, location as the second device.
- 14. (previously presented) The method of claim 1 wherein the creation of the activity logs of the piconet devices occurs automatically without human intervention when the devices form a piconet.
- 15. (previously presented) A method of locating a missing

item, the item being capable of communicating its presence to a piconet telecommunications device, comprising:

- (i) forming a short range piconet with a plurality of piconet telecommunications devices;
- (ii) having the piconet telecommunications devices establish which other piconet telecommunications devices are members of the piconet to which they belong at a particular point in time and having the piconet telecommunications devices create an activity log correlating at least time and the identity of which piconet telecommunications devices were in communication at that point in time;
- (iii) establishing whether the missing item is present in the current piconet of a said piconet telecommunications device and/or reviewing the activity log to establish whether a record exists of a historic piconet to which both the missing item and a contactable other piconet telecommunications device belonged at the time that the historic piconet existed; and
- (iv) establishing whether there is a known location for the historic piconet which most recently had as a member the missing item.
- 16. (original) A method according to claim 15 comprising communicating the last known location of the missing item to the user of the method to enable them to consider whether to investigate that known location to see if the missing item can be found.
- 17. (previously presented) The method of claim 15 comprising visiting the vicinity of the last known position of the missing

item to see if the missing item is there, or contacting a person or device in the vicinity of the last known position of the missing item to enquire after the item.

- 18. (previously presented) The method of claim 15 comprising electronically contacting a known piconet device known to be in the locality of the place where the missing item was last known to be, and enquiring whether the missing item is detectable by the contacted device.
- 19. (previously presented) The method of claim 15 comprising identifying known piconet devices that are believed to be in the vicinity of the last known location of the missing item and determining whether the missing item is in a piconet with them.
- 20. (previously presented) A piconet telecommunications device comprising:
- a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs; and
- a controller to capture a piconet activity log when the device comes within piconet range of other piconet telecommunications devices, to build up a log of which other devices were piconet members with the device and at what time that piconet existed and which of those devices are dual mode devices having both piconet capabilities and having long range telecommunication abilities, to establish the long range telecommunication addresses of any such dual mode devices, and to receive a request to search for a missing item of known identity and upon such request to screen the activity log to identify historic piconets which contained the missing item and

a dual mode device, wherein the controller is adapted upon identifying such a dual mode device to contact it via long range telecommunications and establish whether the missing item is in the current piconet of the dual mode device.

21. (previously presented) A piconet telecommunications device comprising:

a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs; and

a controller to capture a piconet activity log when the device comes within piconet range of other piconet telecommunications devices, the piconet activity log comprising a record of which other devices were piconet members with the device and at what time that piconet existed and a positional location for the piconet at that time, the controller further capable of receiving a request to search for a missing item of known identity and upon such request to screen the activity log to identify historic piconets known to the device to have contained the missing item and the positional location of the historic piconet which last contained the missing item, the device being adapted to communicate the last, piconet-known to the device, location of the missing item to the user.

- 22. (previously presented) A device according to claim 20 which has a memory and in which the controller is adapted to store the device's activity log in the memory of the device.
- 23. (previously presented) A device according to claim 20 which is a dual mode device having a long range telecommunications transmitter and receiver, and in which the

device is adapted to contact said dual mode device that is known at one time to have been in a piconet with the missing item, or to contact a piconet device near the last known position of the missing item, using its long range telecommunication transmitter and receiver.

- 24. (previously presented) A device according to claim 20 in which the controller has the capability of recording in the activity log the geographical location of the device and associating the position of the device at a point in time with the piconet members at that point in time.
- 25. (original) A device according to claim 24 which has a location identifier.
- 26. (previously presented) A device according to claim 20 which has a clock and is adapted to time-stamp piconet membership data at a particular point in time using its clock; or which is adapted to import the time from an external source and adapted to time stamp the details of which devices were members of the piconet at a certain time.
- 27. (previously presented) A device according to claim 20 which is a portable mobile electronic device.
- 28. (previously presented) A device according to claim 20, in which the controller is adapted to establish the telecommunications address of piconet members and store them so as to be able to retrieve them in order to contact them at some time in the future.
- 29. (previously presented) A device according to claim 20 which is adapted to establish the nearest fixed device position,

or last known position of a mobile device, that has long range telecommunications, near to the last known position of the missing item, and to contact them to enquire whether the missing item is in their piconet.

- 30. (previously presented) A device according to claim 20 which has details of predetermined favorite locations, and corresponding address for long range telecommunication devices which are equipped for piconet communication and which are near or associated with these locations, and which is adapted to contact such devices as part of a search for a missing item.
- 31. (original) A piconet network comprising a plurality of piconet devices in communication, the piconet devices having the functional capability of automatically exchanging with other devices in a piconet, without human intervention, information as to their identity, and of recording the identity of members of the piconet in an activity log or in respective piconet activity logs associated with each piconet device, the activity log(s) including the members of the piconet and a time at which the particular piconet with those particular members existed.

32. (canceled)

- 33. (previously presented) A piconet telecommunications device comprising:
- a piconet receiver capable of receiving information about members of piconets to which the device temporarily belongs; and
- a controller to create automatically, without user intervention, when the device comes within piconet range of a piconet apparatus and communicates with said piconet apparatus,

- a piconet activity log which records the identity of the members of the piconet to which the device belongs.
- 34. (original) A device according to claim 33 wherein the controller is adapted to record the piconet members and the time at which members joined and/or left the piconet, as well as their identities.
- 35. (previously presented) A device according to claim 33 wherein the controller is also adapted to record the geophysical location associated with a piconet membership at a particular time.
- 36. (previously presented) A device according to claim 35 wherein the device has a location sensor adapted to provide details of the location of the device.
- 37. (canceled)
- 38. (previously presented) A device according to claim 33 which is hand-portable and pocketable.
- 39. (previously presented) A device according to claim 20 further comprising the controller having details of an associated item set associating a set of known items in a notional group, and the controller being adapted to monitor the piconet to which the device belongs and being adapted to generate an alarm when an item from said associated item set leaves the piconet.
- 40. (original) A device according to claim 39 wherein the controller is adapted to generate an immediate alarm and the alarm is adapted to attract the attention of the user via at

least one of their senses.

- 41. (previously presented) A device according to claim 39 wherein the controller is adapted to generate an alarm when it detects the absence from the piconet to which the device belongs of an item from the associated item set.
- 42. (previously presented) A device according to claim 39 having a user-operable alarm cancellation input adapted to enable a user to stop an alarm.
- 43. (previously presented) A device according to claim 20 wherein the controller is adapted to generate a report analysing the piconet activity log and/or export the piconet activity log to another electronic device.
- 44. (original) A method of tracking piconet-capable articles in the physical environment of a piconet device comprising having the device automatically create without user input a piconet activity log of the identity of piconet capable articles which have formed an ad-hoc piconet with said device.
- 45. (original) A method according to claim 44 comprising associating in the piconet activity log a time for membership of the piconet for piconet-capable articles.
- 46. (original) A method according to claim 45 comprising recording in the piconet log the time that an article joins and/or leaves the piconet.
- 47. (previously presented) A method according to claim 1 comprising having an associated set of piconet member articles whose presence in the piconet is tracked, and generating an

alarm when an article of the associated set of piconet member articles leaves the piconet.

- 48. (previously presented) A method according to claim 44 comprising generating a report analysing the contents of the piconet activity log.
- 49. (previously presented) A method according to claim 44 comprising generating a report on articles in the present or historic piconets using the piconet activity log.
- 50. (previously presented) A method according to claim 48 comprising generating at least one of the following reports:
- (i) members of piconet at a particular time;
- (ii) history of piconet membership for a selected piconet member device;
- (iii) correlation of piconet membership for selected first
 and second piconet member devices;
- (iv) selected piconet device at selected physical location(s);
- (v) piconet member devices that have been at selected physical location(s).
- 51. (previously presented) A data carrier having a program encoded upon it, the program when loaded onto, or running on, a controller of a piconet device having a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs causes the controller to capture a piconet activity log when the device comes within piconet range of other piconet devices and to build up a log of which other devices

were piconet members with the device and at what time that piconet existed, and also which of those devices are dual mode devices having both piconet capabilities and having long range telecommunication abilities, and to establish their long range telecommunication addresses; and further causes the controller on receiving a request to search for a missing item of known identity to screen the activity log to identify historic piconets which contained the missing item and a dual mode device, and upon identifying such a dual mode device to contact it via long range telecommunications and to establish whether the missing item is in the current piconet of the dual mode device.

- (previously presented) A data carrier having a program 52. encoded upon it, the program when loaded onto, or running on, a controller of a piconet device having a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs causes the controller to capture a piconet activity log when the device comes within piconet range of other piconet devices, the piconet activity log comprising a record of which other devices were piconet members with the device and at what time that piconet existed and a positional location for the piconet at that time; and further causes the controller on receipt of a request to search for a missing item of known identity and to screen the activity log to identify historic piconets known to the device to have contained the missing item and the positional location of the historic piconet which last contained the missing item, the device being adapted to communicate the last, piconet-known to the device, location of the missing item to the user.
- 53. (previously presented) A data carrier having a program

encoded upon it, the program when loaded onto, or running on, a controller of a piconet device having a piconet receiver capable of receiving information about members of a piconet to which the device temporarily belongs causes the controller to create automatically, without user intervention, when the device comes within piconet range of a piconet apparatus and communicates with said piconet apparatus, a piconet activity log which records the identity of the members of the piconet to which the device belongs.

- 54. (previously presented) A device according to claim 21 which has a memory and in which the controller is adapted to store the device's activity log in the memory of the device.
- 55. (previously presented) A device according to claim 21 which is a dual mode device having a long range telecommunications transmitter and receiver, and in which the device is adapted to contact said dual mode device that is known at one time to have been in a piconet with the missing item, or to contact a piconet device near the last known position of the missing item, using its long range telecommunication transmitter and receiver.
- 56. (previously presented) A device according to claim 21 in which the controller has the capability of recording in the activity log the geographical location of the device and associating the position of the device at a point in time with the piconet members at that point in time.
- 57. (previously presented) A device according to claim 56 which has a location identifier.
- 58. (previously presented) A device according to claim 21

which has a clock and is adapted to time-stamp piconet membership data at a particular point in time using its clock; or which is adapted to import the time from an external source and adapted to time stamp the details of which devices were members of the piconet at a certain time.

- 59. (previously presented) A device according to claim 21 which is a portable mobile electronic device.
- 60. (previously presented) A device according to claim 21, in which the controller is adapted to establish the telecommunications address of piconet members and store them so as to be able to retrieve them in order to contact them at some time in the future.
- 61. (previously presented) A device according to claim 21 which is adapted to establish the nearest fixed device position, or last known position of a mobile device, that has long range telecommunications, near to the last known position of the missing item, and to contact them to enquire whether the missing item is in their piconet.
- 62. (previously presented) A device according to claim 21 which has details of predetermined favorite locations, and corresponding address for long range telecommunication devices which are equipped for piconet communication and which are near or associated with these locations, and which is adapted to contact such devices as part of a search for a missing item.
- 63. (previously presented) A device according to claim 21 further comprising the controller having details of an associated item set associating a set of known items in a notional group, and the controller being adapted to monitor the

piconet to which the device belongs and being adapted to generate an alarm when an item from said associated item set leaves the piconet.

- 64. (previously presented) A device according to claim 63 wherein the controller is adapted to generate an immediate alarm and the alarm is adapted to attract the attention of the user via at least one of their senses.
- 65. (previously presented) A device according to claim 63 wherein the controller is adapted to generate an alarm when it detects the absence from the piconet to which the device belongs of an item from the associated item set.
- 66. (previously presented) A device according to claim 63 having a user-operable alarm cancellation input adapted to enable a user to stop an alarm.
- 67. (previously presented) A device according to claim 21 wherein the controller is adapted to generate a report analyzing the piconet activity log and/or export the piconet activity log to another electronic device.
- 68. (previously presented) A device according to claim 33 further comprising the controller having details of an associated item set associating a set of known items in a notional group, and the controller being adapted to monitor the piconet to which the device belongs and being adapted to generate an alarm when an item from said associated item set leaves the piconet.
- 69. (previously presented) A device according to claim 68 wherein the controller is adapted to generate an immediate alarm

and the alarm is adapted to attract the attention of the user via at least one of their senses.

- 70. (previously presented) A device according to claim 68 wherein the controller is adapted to generate an alarm when it detects the absence from the piconet to which the device belongs of an item from the associated item set.
- 71. (previously presented) A device according to claim 68 having a user-operable alarm cancellation input adapted to enable a user to stop an alarm.
- 72. (previously presented) A device according to claim 33 wherein the controller is adapted to generate a report analyzing the piconet activity log and/or export the piconet activity log to another electronic device.

There is no evidence submitted with the present Brief on Appeal.

There are no other appeals or interferences related to the present application.